

DEPARTMENT of ENVIRONMENTAL SERVICES
Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: SILVER LAKE RESERVOIR	Lake Area (ha):	1.38
Town: WARNER	Maximum depth (m):	3.3
County: Merrimack	Mean depth (m):	1.7
River Basin: Merrimack	Volume (m ³):	24000
Latitude: 43°16'18" N	Relative depth:	2.5
Longitude: 71°50'05" W	Shore configuration:	1.68
Elevation (ft): 625	Areal water load (m/yr):	177.5
Shore length (m): 700	Flushing rate (yr ⁻¹):	102.0
Watershed area (ha): 507.6	P retention coeff.:	0.11
% watershed ponded: 0.0	Lake type:	

BIOLOGICAL:

11 January 1995

9 August 1994

DOM. PHYTOPLANKTON (% TOTAL)	#1	NO PHYTOPLANKTON	CHRYSOSPHAERELLA 50%
	#2	SAMPLES COLLECTED	DINOBRYON 15%
	#3		
PHYTOPLANKTON ABUNDANCE (units/mL)			
CHLOROPHYLL-A (µg/L)			0.55
DOM. ZOOPLANKTON (% TOTAL)	#1	NO ZOOPLANKTON	KERATELLA 38%
	#2	SAMPLES COLLECTED	CYCLOPOID COPEPOD 25%
	#3		NAUPLIUS LARVA 21%
ROTIFERS/LITER			588
MICROCRUSTACEA/LITER			506
ZOOPLANKTON ABUNDANCE (#/L)			1110
VASCULAR PLANT ABUNDANCE			Common
SECCHI DISK TRANSPARENCY (m)			2.5
BOTTOM DISSOLVED OXYGEN (mg/L)		15.0	4.4
BACTERIA (E. coli, #/100 ml)	#1		1
	#2		< 1
	#3		

SUMMER THERMAL STRATIFICATION:

not stratified

Depth of thermocline (m): None
Hypolimnion volume (m³) : None
Anoxic volume (m³) : None

CHEMICAL:

Lake: SILVER LAKE RESERVOIR
Town: WARNER

	11 January 1995		9 August 1994		
DEPTH (m)	1.0		1.5		
pH (units)	6.4		6.9		
A.N.C. (Alkalinity)	3.6		7.4		
NITRATE NITROGEN	0.07		0.05		
TOTAL KJELDAHL NITROGEN	0.22		0.31		
TOTAL PHOSPHORUS	0.006		0.016		
CONDUCTIVITY (μ mhos/cm)	39.4		43.4		
APPARENT COLOR (cpu)	15		48		
MAGNESIUM			0.54		
CALCIUM			3.1		
SODIUM			3.6		
POTASSIUM			0.50		
CHLORIDE	5		6		
SULFATE	5		3		
TN : TP	48		23		
CALCITE SATURATION INDEX			3.0		

All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1994

D.O. S.D. PLANT CHL TOTAL CLASS

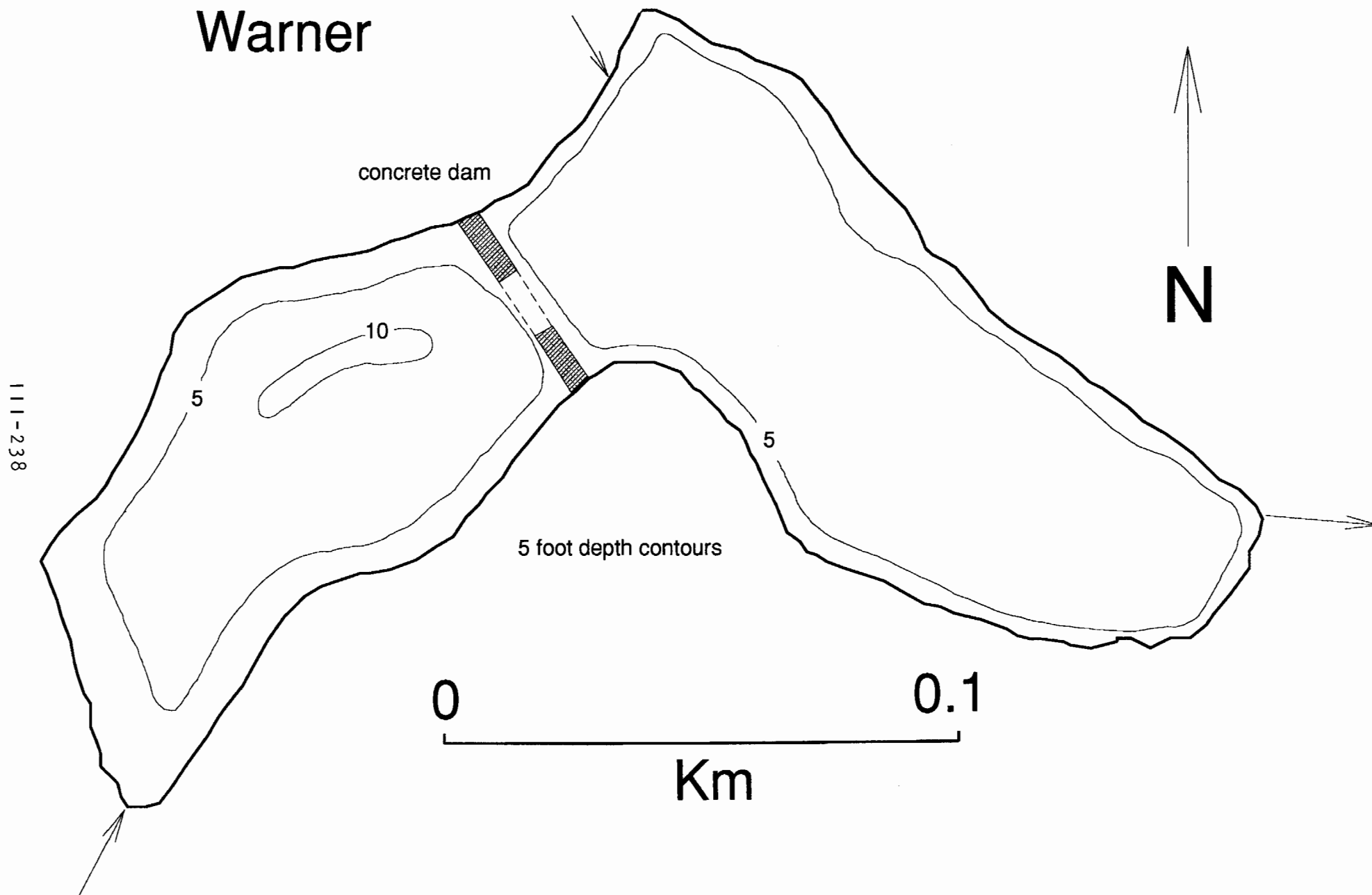
**	3	3	0	6	Meso.
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COMMENTS:

1. This is the former water supply for the Town of Warner. A town beach was established on the pond in 1995. Although small and shallow (not ideal for a public beach) the pond has a high flushing rate which allows the pond to maintain low algal and bacteria levels.

Silver Lake Reservoir

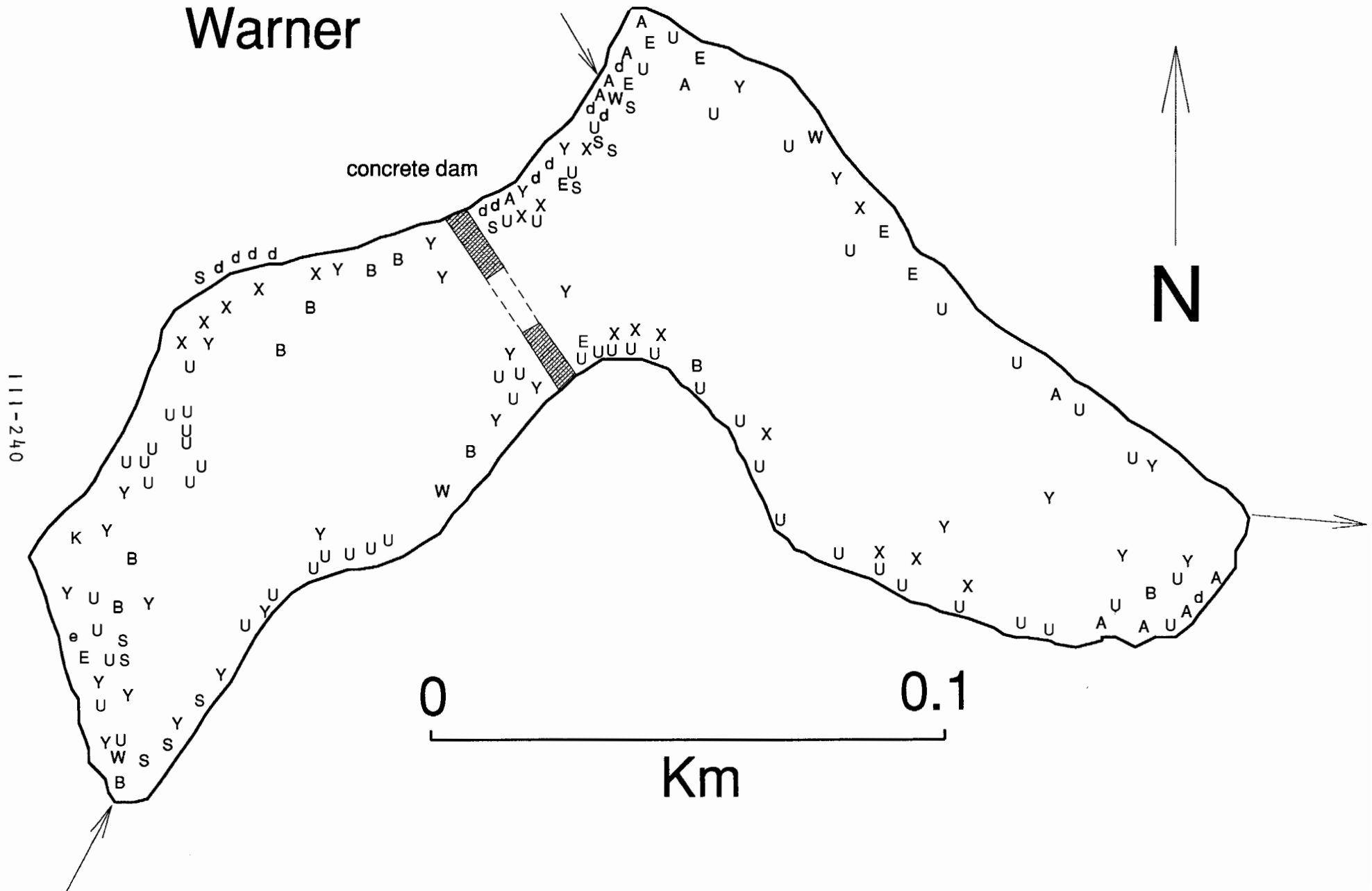
Warner



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Silver Lake Reservoir

Warner



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